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of the

Graduate School

1948 \*



United States Department of Agriculture Washington, D. C.

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United Status Department of Agriculture

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#### UNITED STATES DEPARTMENT OF AGRICULTURE GRADUATE SCHOOL WASHINGTON 25, D. C.

November 30, 1948

Hon. Charles F. Brannan Secretary of Agriculture

Dear Mr. Secretary:

Herewith the General Administration Board of the Graduate School submits as its report on its stewardship of the Graduate School for the year ended August 31, 1948, the Report of the Director of the Graduate School, 1948.

Sincerely yours,

T. Roy Reid, Chairman General Administration Board

UNITED STATES DEPARTMENT OF AGRICULTURE GRADUATE SCHOOL WASHINGTON 25, D. C.

Movember 15, 1948

Mr. T. Roy Reid, Chairman General Administration Board

Dear Mr. Chairman:

In accordance with the regulations governing the United States Department of Agriculture Graduate School, I submit the Annual Report for the year ended August 31, 1948.

Sincerely yours,

Lewis H. Rohrbaugh Director

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# REPORT OF THE DIRECTOR OF THE GRADUATE SCHOOL, 1948

#### INTRODUCTION

This twenty-seventh annual report on the Graduate School reflects, within the limitations under which the agency operates, another year of solid achievement.

Several continuing trends stand out. One is increasing cooperative relationships with other educational institutions, particularly land-grant institutions. A second is seen in even closer integration with USDA agencies. A third manifests itself in greater emphasis on service activities of an educational nature, and at the same time shows a widening gap between requests for such service and resources to meet them. This is especially true of activities on behalf of the field service.

The most significant trend appears in emphasis on selfappraisal across the board, refusal ever to be satisfied
with present activities no matter how effective these appear.
Critical self-analysis has been always characteristic of
the Graduate School, an element of great strength. This
year it has burgeoned more vigorously than ever before.
It is focused most vividly in the appointment and work of
the Committee on Long-Range Plans.

The only ceiling to effective contributions, through the Graduate School, toward meeting educational needs of the Department is capacity for appraisal of needs and of ways of meeting them, and willingness and resourcefulness in taking steps revealed as essential.

As usual, this report is supplemented by two related documents: Financial Report of the Graduate School, 1948, and Report on Educational Statistics, 1948.

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# I. INSTRUCTIONAL PROGRAMS

The Department of Agriculture for some years has been in an era of expanding responsibility and opportunity. It is entering an era of even greater responsibility and opportunity. The Graduate School has occupied an important role in helping the Department to meet this challenge.

The element most important to Government is able effective employees. The President's Research Board has emphasized the value of providing educational opportunities for scientists and other workers. It has urged more emphasis by Federal agencies on steps to improve the technical competence of employees through educational programs.

# After-hours Program in Washington

Dividends to be gained by the Department, and consequently by those it serves, through increased competence in its employees have been the chief purpose of activities undertaken by the Department's Graduate School. These activities, designed to increase the return on the taxpayer's dollar, and at the same time to help employees in their efforts to advance themselves, include and prominently emphasize a resident, after-hours program in Washington.

This program, the principal activity of the School, comprises eight subject-matter departments whose courses are as broad as the Department of Agriculture. And because the Department is a large and varied organization, most of the courses present opportunities of interest to the personnel of other Federal agencies.

The Graduate School does not award degrees, but it cooperates with institutions that do award degrees. It maintains close working relationships with institutions all over the country, particularly land-grant institutions. Naturally, the School cooperates with nearby educational institutions. Its closest working relationship is with the University of Maryland.

To broaden the educational opportunities provided by each institution, the USDA Graduate School and the University of Maryland last spring concluded cooperative arrangements to make certain of the resources of each institution available to the students of both. Under these arrangements work taken at USDA-GS may be applied as partial residence credit toward undergraduate or advanced degrees at University of Maryland. Representatives of certain subject matter departments at each

institution are developing integrated educational programs. These arrangements in general will mature slowly because they require careful and highly articulated planning. They will be of genuine use and significance.

Other local cooperation, more limited in scale, includes courses for Federal nursing personnel which USDA-GS and the Catholic University of America will present jointly. By request, a USDA-GS faculty member will go to University of Virginia each semester next year to present a course developed by USDA-GS.

#### Graduate School Council

To coordinate functional activities and obtain concerted action on problems common to the eight subject-matter departments, the Graduate School has a Council composed of the chairman of each department and the School's Director. The Council meets at least twice yearly to evaluate developments and look ahead.

#### Students

Enrollment in the Washington after-hours program in 1948 totaled 4156 individuals. This was considerably lower than in 1947 and lower than in any year since 1942 though not much different from the enrollment in 1944 and 1946. Almost 500 additional persons registered for courses which it was impossible to give owing to lack of funds. The pattern of recent years continued with respect to age groupings. Heaviest registration in the fall was in the 26-30 year group, and in the spring semester in the 31-35 year group. Next highest in 1948 was in the 36-40 year group; then came the 20-25 group followed by the 41-45 group.

Student enrollment objectives were, in the order of incidence: preparation for advancement; improvement of performance in present position; the gaining of certified statements of accomplishment; completion of degree requirements. As usual, students came from every Federal establishment, and from a variety of non-Federal agencies as well. Both the Army and Navy furnished more students than did Agriculture. In USDA the greatest number was from PMA and the second largest number was BAE.

In both fall and spring somesters student opinion as to the offgetiveness of the courses was surveyed. Results of these surveys, along with data on educational vocational backgrounds, and on registration by departments and by level of courses, and related factors, appear in Report on Educational Statistics, 1948.

#### Faculty

One of the chief objectives of the subject-matter committees in 1948 was the development of greater participation by faculty members in the evaluation and adjustment of course programs. Faculty members contributed zealously to general evaluation of the programs and related work. Many meetings of committee and faculty members assessed the adequacy and up-to-dateness of course programs and individual courses. Faculty members cooperated effectively in the surveys of student opinion and in following through on matters which surveys indicated needed attention.

Graduate School faculty members are usually outstanding representatives of their fields. What they contribute in time and interest is out of all proportion to the nominal uniform pay. Their contribution reflects deep interest in the improvement of the public service and in their particular fields of work.

#### Departments

Graduate training is not the final step in educating competent scientists. Today's unbelievable rapid development of scientific knowledge adds force to this truth. Holders of degrees even 5 to 10 years old, if they have no opportunity to keep abreast of developments in their field, possess only part of the knowledge they should have. The Federal Government, especially by comparison with many private industries, has not provided effective means of helping this situation.

This shortcoming applies fully to Agriculture, particularly in the biological aspects. Means open to the Department for correcting the trouble, in terms of enabling legislation and funds, are few. One avenue is the Graduate School. Its Department of Biological Sciences, chaired by Dr. Albert H. Moseman, PISAE-ARA, has provided opportunities as fully as its resources permitted.

Seminars in the Department of Biological Sciences are in cycles. Led by the Department's most eminent scientists and participated in by both post-doctorate and advanced graduate personnel, the seminars carry lines of study forward from one year to the next. For example, two of last year's seminars, "progress in the field of antibiotics" and "advances in insecticides and fungicides", were followed by two seminars this year in "recent developments in plant physiology and plant nutrition" and "advances in plant breeding and genetics". Next year seminars are scheduled in "advances in weed control practices" and "virus diseases of man and animals".

For its dissemination of information through practical easilyapplied channels, the Cooperative Extension Service is world-Chairman Lester A. Schlup, Extension Information renowned.

Director, with the aid of his competent de-Languages partmental committee has built an increasingly effective program in this area. Numerous preand Literature sentation methods, with special techniques for

each method, give effective diversity in the approach to different subjects or student groups.

An extensive program of language courses enables scientists and others to equip themselves for many assignments at home as well as abroad. Persons who must acquire foreign language competency quickly may take advantage of the close working relationship with Department of State's Foreign Service Institute, which offers intensive language instruction. Henry Lee Smith, director of this program, was appointed in May to a 1948-50 term on the departmental committee. An example was the Office of Labor employee who, in anticipation of assignment to Agriculture's hoof and mouth disease work in Mexico, was able to turn a fair knowledge of Spanish into fluency within a few weeks.

The flexible ability of Graduate School departments to develop special programs to meet specific needs is well illustrated in two undertakings for which this department completed arrangements during the year. At the request of the Pan American Union a program of language and related courses will get underway this fall for employees of that agency and of the Latin American embassies. Except for a nominal registration fee, the program is to be financed entirely by the Union. In another area the Library of Congress, the Washington Chapter of the Special Libraries Association, and the Graduate School open this fall a small course program designed to meet special needs of librarians in Washington. Carefully documented as to need, by a special survey of the Association, the program will be located in well-adapted Library of · Congress facilities.

Covernment and business the world over are placing unprecedented dependence on statisticians. The Graduate School has long been distinguished for its courses in mathematics and statistics.

Mathematics and Statistics

Under Chairman W. Edwards Deming, this department is helping to meet the need. Increasing appreciation of the importance and possibility of possessing information of measurable reliability

as the basis for making decisions, plus the inadequate supply of competent statisticians and the current and to-continue strain on educational facilities, have given added significance to the contribution of the Graduate School. The year saw considerable time spent by faculty and committee on the readjustment of courses and programs to changing needs. This is a continuing process. A course in "Agricultural Estimating Procedures" for thirty-two BAE specialists in agricultural estimates was typical of the continued response.

This department is well-known for its outstanding lecture series. Among the features of the International Statistical Conference held in Washington last fall was a Graduate School lecture series on experimental design, by Dr. Frank Yates, Head of the Department of Statistics at England's Rothamsted Experiment Station. USDA's Committee on Experimental Design assisted in sponsoring the series. In May L. H. C. Tippett, British Cotton Industrial Research Association, took part in a three-day series of lectures and conferences. Dr. Harold F. Dorn, Chief of Statistical Methods and Services for US Public Health Service and Joseph F. Daly, Bureau of the Census statistician, were appointed in May to 1948-50 terms on the Departmental Committee.

Work offered by this department is dissimilar in several ways to that offered elsewhere in the Graduate School. With but two exceptions it is entirely at the undergraduate level. It is devoted

Office Techniques and Operations

exclusively to practical how-to-do-it courses, chiefly for those in grade CAF-7 or below positions, which can be translated immediately into effective service in some administrative

process. The program of Clerical-Administrative Procedures centers largely around techniques and procedures of the Federal service. It is correlated with a small program in report and procedural writing, and another in shorthand.

This is not a dramatic program. It does not encompass new discoveries meriting far-flung attention. But it is a backbone program for helping those who carry on day in and day out the more routine phases of the Federal service. The caliber of work done is high. The first named program has no duplicate. The quality of work done in the shorthand courses was illustrated when in October at a ceremony in Jefferson Auditorium, one student, in recognition of her ability to take dictation at 200 words per minute for five minutes and transcribe the notes with at least 95% accuracy, became the 212th person in the United States in 22 years to receive the Gregg Diamond Medal.

Harold Leich, Civil Service Commission's Program Planning Chief; Arthur Thatcher, Chief, Office of Plant and Operations; and A. R. Miller, Assistant Chief, BAI-ARA, received in May two-year appointments to the Departmental Committee.

Besides providing opportunities for study in advanced fields, this department of the Graduate School puts emphasis on facilities for securing formal instruction in the fundamental sciences.

Physical offered in chemistry, soil sciences, metallurgy and meteorology, with more limited work in a few additional fields. The large number of meteorologists produced by war-time educational programs has warranted a decrease in the size of the educational program carried on in cooperation with the US Weather Bureau, but it meets a limited continuing demand.

One feature of this year was a series in "Food Technology - Practices and Principles", presented in cooperation with the Maryland Institute of Food Technologists. Under the leadership of Crown Cork and Seal's Chemical Director, Dr. A. H. Warth, it attracted industrial food technologists from all parts of the country. Chairman Stevens and Vice-Chairman Keiles helped in this development.

Modern emphasis on public services and operations adds to the importance of educational courses in public administration.

Washington is the focal point for developments in the principles and techniques of public administration ministration. Growth in public service functions are increasing and delegation of discretion to administrative agencies creates a growing demand for training.

The Graduate School's department was established in the late 30's as a pioneering effort. It has developed principles and techniques, and assisted many individuals to improve their administrative work.

Each year the department's functional committees re-examine changing needs, and adjust programs accordingly. Recent developments in public administration and in training facilities reflect general awareness of new needs. In 1947 the Graduate School appointed a committee to explore these needs and an effective program for meeting them. Chaired by Harlow S. Person, REA, the committee included members of two other USDA agencies, of industry, of the US Civil Service Commission, and of three universities - California, Chicago and Harvard. Thus it represented political science, public administration, scientific management and practical administration. By the end of the fiscal year the Committee on General Administration was about ready to report. Its recommendations will go to various committees in the Department of Public Administration for study and comment.

A reorganized program of the Division of Organization and Methods Analysis, under Chairman Harold A. Stone and a competent committee went forward during the year. An Organization and Methods Clinic, set up under I. T. McKillop, REA, and a panel of experts as a free consultative service to persons carrying for their agencies responsibilities in this field, made an encouraging beginning though it did not draw many clients.

The President's Scientific Research Board in its 1947 report pointed out the need to bridge the gap between technical direction and broad policy considerations. It said research administration requires persons with training in both science and administration.

The relationship between research and administration long has been of concern to Agriculture. The Graduate School has maintained that "institutionalized research" requires a blending of two abilities. Recognized widely, the problem so far has evoked few organized responses to it. In 1946 in cooperation with a naval research laboratory, the Graduate School conducted an exploratory seminar. In 1947 a small committee under the Forest Service's Assistant Chief in Charge of Research was set up to continue the exploration. Comparatively little progress in this undertaking was reported in 1948, owing largely to the press of other affairs, but the exploration will continue.

In May Don K. Price, Assistant Director, Public Administration Clearing House, was appointed to a two year term on the departmental committee.

In May two new members were added for the 1948-50 term to the Departmental Committee on Social Sciences under Chairman F. V. Waugh. They were Roger B. Corbett, Associate Dean of the College of Agriculture, and Associate Director of Extension

Social Science Research Council. Mr. Webbink of placed Philip M. Hauser, University of Chicago.

The problem of training personnel for marketing received close attention. E. A. Meyer, Administrator of the Research and Marketing Act, met frequently with the Committee. The deliberations along with planning by a committee of agency representatives appointed by Mr. Meyer resulted in progress on both short term and long term aspects of the task.

A special meeting called by the Land-Grant College-USDA Committee on Training for the Public Service resulted in the appointment of two sub-committees, one to consider the immediate and the other

the long-term problem. The former, with representatives from six land-grant institutions, met with USDA representatives and took steps to publicize the need for marketing personnel and stimulate attendance at marketing courses. The committee recommended concentration of 1949 summer training in marketing at four regional centers. Administrator Meyer subsequently invited the president of Montana A&M College to visit various colleges as a means of getting facts and ideas pertinent to this problem. The Graduate School, as noted elsewhere, gave from April to June a 6-hour in-service course for some 200 USDA marketing employees in Washington. The course was under the direction of a FCA employee assigned to the Graduate School.

The sub-committee dealing with long-range marketing training problems met in Washington in March and offered recommendations for training of various types. The recommendations were sent to land-grant institutions in May by the Land-Grant-USDA Committee on Training for the Public Service. For 1949 the Graduate School is offering its program of marketing courses, slightly revised, regardless of whether they are normally scheduled for other years on a rotation basis.

With one major exception most other programs in the Department continued as planned and will remain the same for 1948-49. A joint meeting of the Departmental Committee, the Committee on Transportation and concerned faculty members was held to review work in this field. Under its new chairman, Donald E. Church, BAE, and with the addition of W. C. Crow, PMA, and Myles E. Robinson, Air Transport Association of America, the Committee altered its program extensively.

In this program the major change was in the Division of Surveying and Mapping. Undertaken in 1947 at the request of the American Congress on Surveying and Mapping, this branch of the work required expansion. Under Chairman Marshall S. Wright, Technology P&O, president-elect of the Congress on Surveying and Mapping, representatives of Federal agencies became members of a Committee on Surveying and Mapping which also included faculty members. The committee worked on preparation of a training program in the technical and supervisory aspects of map making. It goes into effect this fall.

R. G. Hainsworth, FAR, Chairman of the Division of Technical Arts, was appointed to serve as Chairman of the Committee on Photography which, in the same division, has developed a broad and widely-known curriculum.

#### Official-hours Programs

The previously mentioned in-service course in marketing given for six hours a week in the late spring was designed for the marketing-work force here. It was part of a general program to increase the number and competency of marketing personnel. A course in "agricultural estimating procedures", given for thirty-two BAE specialists, served not only these participants but many members of the field service also because materials developed in the course went regularly to each state statistician's office. In REA thirty top administrative and engineering personnel completed in May the USDA-GS course in "Effective Meetings" under Douglas Ensminger, BAE. The course was not offered as a GS course. The REA group has since met monthly with Dr. Ensminger to assess the usefulness in daily operations of the principles learned.

## Correspondence Study Program

A small correspondence study program inaugurated in 1943 in cooperation with the several agencies of the Department having extensive field forces deals primarily with matters peculiar to the Federal service. It was designed especially for employees in isolated areas or employees unable to get the desired instruction elsewhere. The program was small and was not widely publicized. This was because it was experimental. Moreover, it was not likely to be self-supporting.

Agencies and individuals in USDA have urged expansion of correspondence study, usually in connection with proposals that the general service of the Graduate School be extended broadly to the field service. Such a request again was made at the December 1947 Biennial Conference of USDA Administrators and Personnel Officers Meeting at Biloxi, Mississippi.

In May the Director asked the heads of all USDA agencies with extensive field forces, and all staff agencies associated in work with field services, to appoint representatives to a committee for taking stock of correspondence study and related matters. The Committee presented comprehensive findings and recommendations, chiefly as to correspondence study but also with regard to related extension activities. Its report went to the Committee on Long-Range Plans, mentioned elsewhere in this report. Proposals within the scope of present resources will receive early attention.

Given permanent status, the correspondence study committee will continue to advise the Graduate School. Its members are: Robert Adcock (PMA), Louise O. Bercaw (Lib.), Daniel A. Currio (Pers.), Cannon C. Hearne (Ext.), Hans hoiberg (REA), Warren Murphy (FS), E. J. Poterson (SCS), R. L. Webster (Inf.) and G. E. Van Leer (FCA).

#### II. SERVICE ACTIVITIES

The Graduate School carries on some activities not of the formal instructional type. It would be misleading in all cases to give these "service activities" a title because the work is subject to interruption owing to limitation of funds and manpower. Much pressure has accumulated for additional service activities by the Graduate School, along with extension of some of them to the field service. Present limitations largely confine the work to consultation with agencies in Washington and correspondence counseling with field groups. Examples are: analysis with Forest Service personnel of educational needs in range management; analysis of the need for traveling field teams of instructors; study of educational activities for Federal personnel.

# Cooperative Internship Program with Land-Grant Institutions

In its 1947 report the President's Scientific Research Board described the critical situation of the United States with regard to the shortage of qualified scientific and technical personnel. Asked to survey national scientific resources in men, money and materials, and to appraise the training of scientific personnel, the Commission stressed the current inadequacy of resources.

It reported that the limitation on research and development activities is in trained personnel rather than in money. Our technical progress depends on  $\frac{1}{3}$  of 1 percent of our population or a small group of 750,000 scientists, technicians and engineers. Within this pool an even smaller group - 137,000 - is engaged in scientific research, technical development or teaching. Yet our national research and development budget increased by 100% from 1930 to 1940 and by 335% from 1940 to 1947. It has far outstripped the corresponding increase in trained personnel, which was 85% from 1930 to 1940 and 35% from 1940 to 1947. During and after World War II this disparity increased from the operation of the Selective Service System and other factors.

Disparity is most evident in Government and in the universities. Despite increased activities, Government's share had remained about level, the universities' share fell from 49% in 1930 to 36% in 1947, and industry's share greatly increased. Most Government agencies have vacancies on their scientific staffs; some have been unable to undertake certain programs due to particular manpower shortages. Universities, hit harder, have been in perhaps a more critical position because they represent the sources of trained personnel. Congestion in educational institutions will not hit graduate schools, which are already at all-time peaks, until the present junior, sophomore and

freshman classes graduate. In the course of years, the numerical shortage of today will be overcome. But whether it will be overcome soon enough, so that the supply of trained personnel will keep pace with the demand, and will meet the quality requirement, is a question still to be answered.

The Department of Agriculture is one of Government's largest employees of scientific and technical personnel. It has been hit hard. Important areas in research in the Department have beenneglected, or not prosecuted with vigor, because of inability to get qualified personnel. In April the Secretary of Agriculture announced cooperation by the Department and the Association of Land-Grant Colleges and Universities in plans whereby the Department will benefit from the production of qualified post-graduate and post-doctorate personnel in these institutions. It will afford opportunities to such individuals to do research and gain other experience under the direction of the Department's scientific staff in Washington, Beltsville and elsewhere.

The idea of a cooperative internship program was first recommended to the Graduate School by one of its committees. Designed to develop research and other personnel, the plan will aid the work of the Department. The program, developed jointly by a Committee from the Association's Graduate Council and the Department's Graduate School, was approved by the Association's Graduate Council and by its Senate in late 1947. Specific arrangements under it will be between educational institutions and agencies in the Department. Employment under the plan is not restricted to individuals from land-grant institutions.

A Committee on Internship Cooperation with the Department of Agriculture Graduate School and Land-Grant Institutions was appointed by the Secretary to carry out the cooperative plan. Its members are: Rhett Y. Winters (ARA); Russell C. Engberg (FCA); Glady's Gallup (Ext.); Walter H. Larrimer (FS); C. O. Henderson (Pors.); Ethan A. Norton (SCS); Storling R. Nowell (PMA); and O. C. Stino (BAE). In June the Committee sent to heads of agencies a review of the cooperative program's objectives, development and status, and of how the program would operate. Accompanying the memorandum was a review of existing types of authorized employment and an indication of additional authorities being requested from the Civil Service Commission by the Office of Personnel. Simultaneously the Graduate School sent to each land-grant institution details on how it was anticipated the program would work. The interest and enthusiasm of the institutions were marked.

The special appointment authority requested was subsequently approved by the Civil Service Commission. It covers employment of graduate students, not to exceed 100 at any one time, at any grade for not to exceed one year, and not to exceed 25 faculty members for not more than 120 days each in one year. The Director of Personnel in early August issued to Agriculture agencies details of employment procedure and secured from each agency for forwarding to the institutions data as to internship opportunties to be available. Selections will be made by the agencies involved from among persons recommended by the institutions.

The cooperation envisaged is not new. For many years the Department has cooperated with various institutions. Dr. D. F. Beard of the faculty at Ohio State University recently completed a seed-certification study for Production and Marketing Administration under arrangements in which Ohio State and the Graduate School cooperated. This was post-dectorate work done on sabbatical leave. Under the cooperative plan, word as to opportunities will be sent to all institutions and interns may come from any of them. Agriculture agencies are taking an active interest in the program.

#### Cooperative Extension Education

Recent years have seen a growing interest on the part of county agents, supervisory specialists and administrators in cooperative extension work as a profession. No small part of this development has been due to the effective and broad program of training involving courses, workshops, institutes and other educational devices. The Federal Extension Service has provided leadership. It turned to the Graduate School for assistance and cooperation. The resulting close relationship bore fruit in undertakings in Washington, such as the institute held here last year for extension workers from a majority of the States.

The Extension Service and the land-grant institutions have developed graduate programs in cooperative extension education. The Executive Committee of the Association of Land-Grant Colleges and Universities has suggested that one such program be developed by a land-grant institution in each of four regions. Programs looking to advanced degrees in cooperative extension education have been established accordingly at Cornell University, University of Missouri, Colorado A&M and Mississippi State College. There is a demand for such work at non-land-grant institutions. Such programs are available in Teachers College at Columbia University, the University of Chicago, and Harvard University.

There is increasing interest among Extension personnel in temporary work with the Federal Extension Service at Washington, combined with study courses at the Graduate School. Two holders of 4-H Club fellowships and a County Agent on sabbatical leave did this in 1948.

The Graduate School appointed a Committee on Cooperative Extension Education. Its members include Cannon C. Hearne, chairman, Douglas Ensminger, Gladys G. Gallup and M. C. Wilson, all of USDA Extension Service, and Arthur L. Dooring, Director of Agricultural Extension Service, University of Maine and chairman of the Land-Grant Association's Extension Committee on Resident Teaching. The Committee developed a program of specialized courses, and assumed responsibility for student guidance in study programs in the framework of the Graduate School. This program may lead to an advanced degree for the student who can take advantage of the cooperative arrangement. The Committee prepared and the Graduate School published a leaflet describing the courses of special interest to extension people, and indicating how study in Washington may be combined with experience in Extension Service.

#### Internship Program in Sampling

Introduced in 1946-47 by the Department of Mathematics and Statistics, a specialized internship program on sampling was developed by a Committee composed of W. E. Deming, Bureau of the Budget; W. F. Callander, BAE; William G. Cochran, Johns Hopkins University; Morris M. Hansen, Bureau of the Census; Aryness Joy Wickens, Bureau of Labor Statistics; and Frederick F. Stephan, Cornell University.

This program combines course work at the Graduate School with experience in large-scale sampling in government agencies. It is in a position to utilize Washington's exceptional facilities. Moreover, there is a shortage of statisticians with training and experience in large-scale statistical projects. Yet in two years only three persons have applied for the work. One applicant did not go through, one was rejected because of inadequate previous training and one was accepted. This program is of specialization; it has not been publicized; and internships are not compensated. The cooperative program with land-grant institutions may favorably influence some of the conditions.

## Internships for Persons from Foreign Countries

Passage by the 80th Congress of Public Law 402, U. S. Information and Educational Exchange Act of 1948, better known as the Smith-Mundt Act, in general covered a problem which S521 has been designed to meet. The latter bill was introduced in January, 1947, at the recommendation of the Secretary of Agriculture, by the Chairman of the Senate Committee on Agriculture and Forestry.

It was designed to implement the request by the Office of Foreign Agricultural Relations that the Graduate School take over responsibility for coordination of work in the Department with reference to trainees from foreign countries. Funds for the particular phases of the program envisaged have not yet been appropriated. When these are available and specific plans made for operation under the Act,

it can be determined whether one of the alternatives worked out by a committee representing Office of Budget and Finance, Office of the Solicitor, Office of Foreign Agricultural Relations and Graduate School, can be put into effect. In February, at the suggestion of Under Secretary Dodd, the Board offered to the government of Mexico three fellowships carrying free tuition for one year. This was in connection with a special program developed by Mexico's Minister of Agriculture.

#### Publications ·

Following careful study of the matter by the Administrative Council, the Secretary of Agriculture issued in July an administrative regulation\* providing that when the Department is unable to publish significant manuscripts because of publication policies or limited funds, such publications may under appropriate circumstances be published by the Graduate School. In a small way this plan will aid in making Departmental research and selected activities known. It will especially facilitate inter-communication among scientists.

To implement the regulation and to provide expert advice on these and other publications of the Graduate School, the Director appointed in August a Committee on Publications composed of Harry Mileham (EXT.), Chairman, P. H. DeVries (PMA), R. T. Hall (FS), J. K. McClarren (PISAE-ARA) and M. C. Merrill (Inf.). At the same time there was adopted, with respect to any income from publication of Departmental manuscripts, an internal policy under which all receipts above costs will be used only for publication of manuscripts arising from Graduate School activities or manuscripts released by the Department.

Because of heavy printing schedules none of the Graduate School books expected to be out in 1948 was issued before the end of the fiscal year. Now scheduled for release in the coming fall and winter are: Progress in the Field of Antibiotics, edited by the late H. T. Herrick and George W. Irving; Modern Engineering Materials, edited by Willis S. MacLeod; Lectures and Conferences on Mathematical Statistics (revised) by Jerzy Neyman; and What We Learned in Public Administration During the War, edited by John Thurston.

## General Counseling and Informational Activities

Educational counseling for government employees and others helps Graduate School students and also persons who want guidance in choosing courses at other institutions. Field employees who request information as to studies, particularly correspondence work, are ten times as numerous as the actual participants in Graduate School correspondence courses. Help to these persons is an important function of the School.

<sup>\*</sup>Amendment No. 2, Title 3, Chapter 2, Section 1

One instance of inter-bureau cooperation along this line is furnished in the Eeltsville Graduate School Committee, chaired by Ralph E. Hodgson, BDI, and made up also of representatives of AIC, HN&HE, ARC, PISAE, BAI, EPQ and SCS. The Committee sent to each Beltsville employee a notice of the fall semesters and committee members counseled inquiring employees in their agencies. The committee organized a few Graduate School courses which were given at Beltsville.

## Lectures Lectures

Lectures and lecture-series were given during the year. The Department of Mathematics and Statistics presented three-day lecture series, the only ones of that nature. "Lectures on Agricultural Programs", organized and directed by Assistant to the Secretary Minor and Director of Personnel Reid, were given on Monday afternoons at intervals throughout the year and these lectures, given by USDA agency heads, centered around the major phases and problems of American agriculture. About 5000 persons attended the lectures open generally; between 400 and 500 attended the closed lectures for which a fee was required.

## III. ADMINISTRATION

Two changes in membership occurred on the General Administration Board. Under Secretary of Agriculture Norris E. Dodd left to become Director of the Food and Agriculture Organization of the United Nations. W. V. Lambert, Agricultural Research Administrator, left to become Dean of Agriculture and Director of the Experiment Station, University of Nebraska. the Secretary of Agriculture appointed Under Secretary Albert J. Loveland to replace Mr. Dodd, and P. V. Cardon, Agricultural Research Administrator, to replace Mr. Lambert.

Albert F. Woods, former Director of the Graduate School, died in April. Noted for his outstanding contributions to science, education and administration, Dr. Woods had served as agriculture dean and experiment station director at the University of Minnesota, president of the University of Maryland, and as Director of Scientific Activities of the Department and Director of its Graduate School. Until 1941 Dr. Woods served as Director of the Graduate School and until 1946 as educational advisor.

Among chairmen of departments in the resident program there was one change. Virgil L. Couch, Director of Personnel, Economic Cooperative Administration, succeeded Francis P. Brassor, Chief of Administrative Services, Civil Service Commission, as Chairman, Department of Office Techniques and Operations, Henry A. Donovan, Assistant Chief, AIC-ARA, replaced Mr. Couch as Vice-chairman. With few exceptions, most members of departmental

committees whose terms expired in April were re-appointed to the 1948-50 term.

In February the Board put into effect a Retirement Plan for full-time and non-temporary employees, based on contracts with the Teachers Insurance and Annuity Association of America, a non-profit company set up by Carnegie Foundation especially for colleges and universities. The plan provides benefits in several ways equivalent to those staff members would have gained had they been covered under the Civil Service Retirement Act on the same date. The Retirement Plan culminated almost a year of study of various alternatives by a subcommittee set up by the Board. Committee members were S. B. Herrell (Pers); Ralph R. Botts (BAE); Ralph F. Koebel (Sol.) and Dwight L. Myers (B&F) and John L. Wells (B&F). It represented a definite stop forward, was well received by the staff, and will be significant in recruitment.

The fiscal situation of the Graduate School was satisfactory in 1948, in that expenditures were kept within income. It was unsatisfactory from an overall standpoint in that limitations of funds not only precluded prosecution of activities which should be undertaken, but materially circumscribed carrying out with full offectiveness those already underway.

Almost 100% of the agency's income is from its program of resident instruction in Washington. These funds support this and all other activities. While the income from this source has remained relatively level for several years, operating costs have risen sharply. Administrative salaries, for example, in 1942 representated 17% of expenditures and in 1946 had reached 31%. That they were slightly lower (30.8%) this past year is gratifying only in a dollar and conts standpoint when one considers the factors involved. The contrast is startling if one takes the significant factor of work load for the same period. Publishing costs, to cite another instance, rose steadily from 2.8% in 1942 to 3.7% in 1948. The Financial Report, 1948 contains extensive, varied data on income and costs.

It has been possible to keep expenses within income so far, chiefly by increasingly effective budgetary management and by each year improving fiscal procedures and pertinent operations. On the latter invaluable assistance is received from the Committee on Internal Audit composed of John C. Cooper (B&F), L. G. Bartlett (FCA), R. W. Chapline (FHA), Carl A. Fretts (FCIC) and John F. McShea (PMA).

Perhaps the most significant development of the year was the initiation of a study of long-range plans. The Graduate School has become increasingly conscious of the need for re-examining its role in and services to the Department and for setting up long-range plans which will insure that its resources and activities are directed and adequately implemented in those channels

through which it can help most effectively to meet educational needs of the Department. Since the establishment of the School in 1921 the Department and its educational problems have changed greatly. So has the Graduate School. Now, with the increasing changes brought by the war and the difficult years since, and with long-range plans for Agriculture under careful study, it is more important than ever that the Graduate School have a long-range program. At the request of the General Administration Board, the Director appointed a Committee on Long-Range Plans composed of P. V. Cardon (ARA), Ivy W. Duggan (FCA), Sherman E. Johnson (BAE), Chairman, W. I. Myers, Cornell University, and John Dale Russell, U. S. Office of Education.

The general plan being followed by this Committee on Long-Range Plans is: 1) to identify major educational needs of USDA now and in the years to come; 2) to determine Graduate School programs and services through which these needs best can be served; 3) to assess the extent to which these needs are being met, quantitatively and qualitatively; 4) to recommend any needed changes in or additions to present Graduate School programs and services; 5) to recommend how these can be accomplished most effectively in terms of organizational structure and relationships, finance and related factors; and 6) to propose general steps to be taken to implement findings. It has requested and is receiving the active cooperation of USDA agencies, of the Graduate School faculty and committees, and of other groups.

# GENERAL ADMINISTRATION BOARD

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